

No. 776,505.

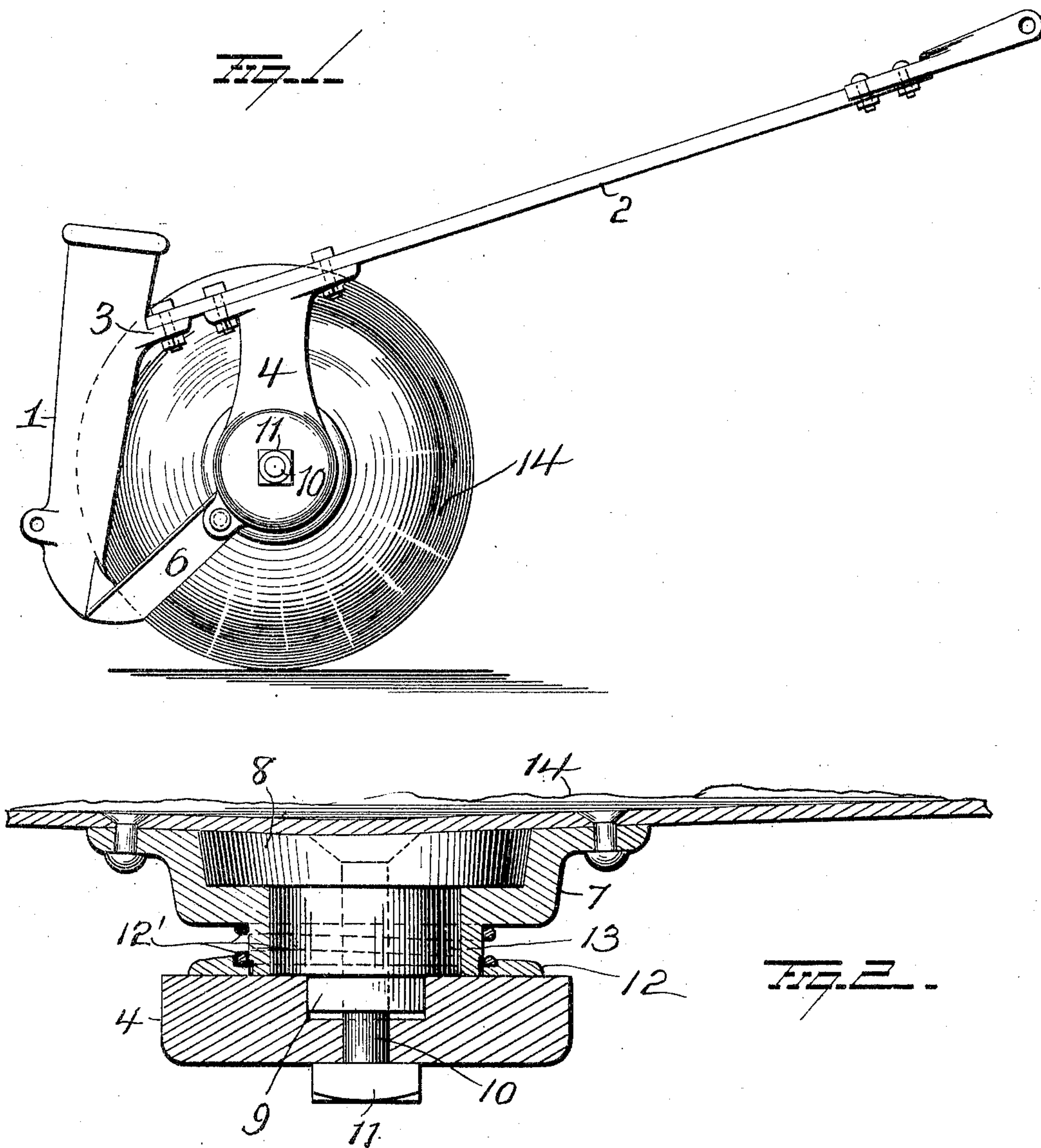
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H. N. FAAS & F. E. MARSH.

GRAIN DRILL.

APPLICATION FILED MAR. 12, 1904.

NO MODEL.



WITNESSES
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UNITED STATES PATENT OFFICE.

HENRY N. FAAS AND FRANK E. MARSH, OF LA CROSSE, WISCONSIN,
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GRAIN-DRILL.

SPECIFICATION forming part of Letters Patent No. 776,505, dated December 6, 1904.

Application filed March 12, 1904. Serial No. 197,877. (No model.)

To all whom it may concern:

Be it known that we, HENRY N. FAAS and FRANK E. MARSH, residents of La Crosse, in the county of La Crosse and State of Wisconsin, have invented certain new and useful Improvements in Grain-Drills; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same.

Our invention relates to improvements in grain-drills, the object of the invention being to provide an improved disk bearing and improved construction and assemblage of the
15 boot, bearing, disk, and drag-bar; and it consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

20 In the accompanying drawings, Figure 1 is a view in side elevation, illustrating one form of our invention; and Fig. 2 is an enlarged view in section, illustrating our improved bearing.

1 represents a seed-dropping boot, and 2 a
25 drag-bar secured to a projection 3 on the boot near its upper end. An arm 4 is secured to drag-bar 2, extends downward therefrom, and is connected with a bearing-block 8 for the concavo-convex disk 14, and a scraper 6 connects the toe of the boot with said arm 4, as
30 clearly shown. To the convex face of the disk, at its center, a cup-like casing 7 is securely riveted and incloses and turns freely upon the enlarged or disk-like end of a bearing-block 8.
35 The smaller end of the bearing-block is made with an angular extension 9, fitting in a correspondingly-shaped recess in arm 4, and a bolt 10 is passed through the block 8 and arm 9 and secured in place by a nut 11. Around the
40 contracted portion of the bearing-block a dust-guard or washer 12 is located and held against arm 4 by a coiled spring 12', bearing at one end against the washer and at its other end against the casing 7. The washer and casing are both

made with interlocking notched or toothed
45 hubs 13, compelling the washer to turn with the casing 7 and disk 14. With this construction the boot, drag-bar, arm carrying the hub and scrapers are made separate and independent, thus simplifying the manufacture and
50 lessening the cost of construction and at the same time producing a structure as rigid as those wherein the disk-carrying arm is integral with the boot.

It is evident that slight changes in the con-
55 struction might be resorted to without departing from the spirit of our invention. Hence we would have it understood that we do not confine ourselves to the exact details shown and described, but consider ourselves at liberty to
60 make such changes as fairly fall within the spirit and scope of our invention.

Having fully described our invention, what we claim as new, and desire to secure by Let-
65 ters Patent, is—

1. In a disk drill, the combination with a
boot having a projecting lug near its upper
end, of a drag-bar rigidly secured to said lug,
a depending arm rigidly secured to said drag-
bar, a disk mounted at the lower end of said
70 arm, and a scraper secured to the lower end of said arm and to the lower end of the boot.

2. The combination with a support, of a
disk, a cup-like casing secured to the disk, a
bearing-block in said casing, and secured to
75 the support, and a spring-pressed dust-guard around the block and bearing against the support.

3. The combination with a support, of a
concavo-convex disk, a cup-like casing secured
80 to the center of the disk on its convex face, a bearing-block in said cup, and made angular at one end to enter an angular socket in the support, a bolt passed through the block and support and secured in place by a nut, and a
85 dust-guard around the block and bearing against the support.

4. The combination with a support, of a

disk, a casing secured to the disk, a bearing-
block in the casing and secured to the sup-
port, a dust-guard around the block, inter-
locking notched hubs on the dust-guard and
5 casing compelling them to turn together, and
a spring pressing the dust-guard against the
support.

In testimony whereof we have signed this

specification in the presence of two subscrib-
ing witnesses.

HENRY N. FAAS.
FRANK E. MARSH.

Witnesses:

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E. O. EDWARDS.